

Amendments to the Claims

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-46. (canceled)

47. (new) A process for continuously producing an elastomeric composition, comprising:

metering and feeding at least one elastomer and at least one filler into at least one extruder;

mixing and dispersing the at least one filler into the at least one elastomer using the at least one extruder; and

passing the elastomeric composition that results through at least one static mixer.

48. (new) The process of claim 47, further comprising:
discharging the resulting elastomeric composition from the at least one extruder;
wherein the discharging is carried out before passing the resulting elastomeric composition.

49. (new) The process of claim 48, further comprising:
cooling the resulting elastomeric composition discharged from the at least one extruder.

50. (new) The process of claim 49, wherein the resulting elastomeric composition is cooled down at a temperature less than or equal to 110° C.

51. (new) The process of claim 49, wherein the resulting elastomeric composition is cooled down at a temperature greater than or equal to 20° C and less than or equal to 90° C.

52. (new) The process of claim 47, further comprising:
metering and feeding at least one minor ingredient into the at least one extruder.

53. (new) The process of claim 52, further comprising:
mixing and dispersing the at least one minor ingredient into the at least one elastomer using the at least one extruder.

54. (new) The process of claim 52, wherein the at least one minor ingredient is selected from: crosslinking agents, crosslinking accelerators, resins, crosslinking activators, crosslinking retardants, adhesion promoters, protective agents, coupling agents, and condensation catalysts.

55. (new) The process of claim 52, wherein the at least one minor ingredient does not include a temperature-sensitive minor ingredient.

56. (new) The process of claim 52, wherein the at least one minor ingredient includes at least one temperature-sensitive minor ingredient.

57. (new) The process of claim 52, wherein the at least one minor ingredient is in a form of a subdivided product.

58. (new) The process of claim 52, wherein the at least one minor ingredient is in a form of a powder.

59. (new) The process of claim 52, wherein the at least one minor ingredient is in a form of a masterbatch.

60. (new) The process of claim 59, wherein the masterbatch is obtained in a form of a subdivided product.

61. (new) The process of claim 60, further comprising:
accumulating an amount of the subdivided product; and
stirring the accumulated amount.

62. (new) The process of claim 59, wherein the masterbatch comprises:
the at least one minor ingredient; and
the resulting elastomeric composition.

63. (new) The process of claim 62, wherein the masterbatch is obtained in a form of a subdivided product.

64. (new) The process of claim 63, further comprising:
accumulating an amount of the subdivided product; and
stirring the accumulated amount.

65. (new) The process of claim 48, further comprising:
adding at least one minor ingredient to the resulting elastomeric composition discharged
from the at least one extruder.

66. (new) The process of claim 65, wherein the at least one minor ingredient is selected
from: crosslinking agents, crosslinking accelerators, resins, crosslinking activators, crosslinking
retardants, adhesion promoters, protective agents, coupling agents, and condensation catalysts.

67. (new) The process of claim 65, wherein the at least one minor ingredient includes at
least one temperature-sensitive minor ingredient.

68. (new) The process of claim 65, wherein the at least one minor ingredient is in a form
of a subdivided product.

69. (new) The process of claim 65, wherein the at least one minor ingredient is in a form
of a powder.

70. (new) The process of claim 65, wherein the at least one minor ingredient is in a form of a masterbatch.

71. (new) The process of claim 70, wherein the masterbatch is obtained in a form of a subdivided product.

72. (new) The process of claim 71, further comprising:
accumulating an amount of the subdivided product; and
stirring the accumulated amount.

73. (new) The process of claim 70, wherein the masterbatch comprises:
the at least one minor ingredient; and
the resulting elastomeric composition discharged from the at least one extruder.

74. (new) The process of claim 73, wherein the masterbatch is obtained in a form of a subdivided product.

75. (new) The process of claim 74, further comprising:
accumulating an amount of the subdivided product; and
stirring the accumulated amount.

76. (new) The process of claim 48, further comprising:

obtaining a subdivided product from the resulting elastomeric composition discharged from the at least one extruder.

77. (new) The process of claim 76, wherein obtaining the subdivided product is carried out at a discharge opening of the at least one extruder.

78. (new) The process of claim 48, further comprising:
cooling the resulting elastomeric composition discharged from the at least one extruder;
and

obtaining a subdivided product from the resulting elastomeric composition discharged from the at least one extruder;

wherein obtaining the subdivided product is carried out after cooling the resulting elastomeric composition.

79. (new) The process of claim 76, further comprising:
accumulating an amount of the subdivided product; and
stirring the accumulated amount.

80. (new) The process of claim 48, further comprising:
adding at least one minor ingredient to the resulting elastomeric composition discharged from the at least one extruder;

obtaining a subdivided product from the resulting elastomeric composition discharged from the at least one extruder;
accumulating an amount of the subdivided product; and
stirring the accumulated amount;
wherein adding the at least one minor ingredient is carried out before accumulating an amount of the subdivided product and stirring the accumulated amount.

81. (new) The process of claim 48, further comprising:
adding at least one minor ingredient to the resulting elastomeric composition discharged from the at least one extruder;
obtaining a subdivided product from the resulting elastomeric composition discharged from the at least one extruder;
accumulating an amount of the subdivided product; and
stirring the accumulated amount;
wherein adding the at least one minor ingredient is carried out after accumulating an amount of the subdivided product and stirring the accumulated amount.

82. (new) The process of claim 47, further comprising:
discharging the elastomeric composition from the at least one static mixer.

83. (new) The process of claim 82, wherein discharging the elastomeric composition is carried out continuously.

84. (new) The process of claim 82, wherein discharging the elastomeric composition is carried out batchwise.

85. (new) An apparatus for continuously producing an elastomeric composition, comprising:

at least one twin-screw extruder;

at least one metering device; and

at least one static mixer;

wherein the at least one extruder comprises:

a housing; and

two screws rotatably mounted in the housing;

wherein the housing comprises:

at least one feed opening; and

a discharge opening;

wherein the at least one metering device meters and feeds at least one elastomer and at least one filler into the at least one extruder, and

wherein the elastomeric composition discharged from the discharge opening passes through the at least one static mixer.

86. (new) The apparatus of claim 85, wherein the at least one metering device is a gravimetric feeder.

87. (new) The apparatus of claim 85, wherein the at least one static mixer is disposed at the discharge opening.

88. (new) The apparatus of claim 85, wherein the at least one static mixer is disposed downstream of the at least one extruder.

89. (new) The apparatus of claim 85, further comprising:
at least one further metering device to meter and feed at least one minor ingredient into the at least one extruder.

90. (new) The apparatus of claim 89, wherein the at least one minor ingredient comprises at least one temperature-sensitive minor ingredient.

91. (new) The apparatus of claim 88, further comprising:
at least one further metering device to meter and add at least one minor ingredient to the elastomeric composition discharged from the discharge opening.

92. (new) The apparatus of claim 91, wherein the at least one further metering device is a gravimetric feeder.

93. (new) The apparatus of claim 91, wherein the at least one minor ingredient comprises at least one temperature-sensitive minor ingredient.

94. (new) The apparatus of claim 88, further comprising:

at least one cooling device upstream of the at least one static mixer.

95. (new) The apparatus of claim 88, further comprising:

at least one device for obtaining a subdivided product from the elastomeric composition discharged from the discharge opening.

96. (new) The apparatus of claim 95, wherein the at least one device for obtaining a subdivided product is disposed at the discharge opening.

97. (new) The apparatus of claim 96, wherein the at least one device for obtaining a subdivided product is a perforated die plate equipped with cutting means.

98. (new) The apparatus of claim 95, wherein the at least one device for obtaining a subdivided product is a granulator or an open mill.

99. (new) The apparatus of claim 95, further comprising:

at least one stirring device;

wherein the at least one stirring device mixes an accumulated amount of the subdivided product.

100. (new) The apparatus of claim 99, wherein the at least one stirring device is disposed upstream of the at least one static mixer.

101. (new) The apparatus of claim 99, wherein the at least one stirring device is a rotating drum.

102. (new) The apparatus of claim 87, further comprising:
a feeding and pumping device disposed upstream of the at least one static mixer.

103. (new) The apparatus of claim 102, wherein the feeding and pumping device is a gear pump.

104. (new) The apparatus of claim 88, further comprising:
a feeding and pumping device disposed at a feed opening of the at least one static mixer.

105. (new) The apparatus of claim 104, wherein the feeding and pumping device comprises one or more of: a gear pump, a single-screw extruder, and a reciprocating screw.

106. (new) The apparatus of claim 85, further comprising:
at least one filtering body positioned upstream of the discharge opening.